

1 Amendment A

2 In the Specification

3 Please amend the Abstract on page 40, lines 1-16, as follows:

4
5 A method for determining the location of the accumulation fluids in a
6 subterranean formation includes determining a first velocity vector " V_x " for migration
7 of fluid in a region of interest in the subterranean formation. The first velocity vector
8 includes attributes of speed and direction of flow of fluid in a first direction in the
9 region of interest. The method further includes determining a second velocity vector
10 " V_y " for migration of fluid in the region of interest. The second velocity vector
11 includes attributes of speed and direction of flow of fluid in a second direction in the
12 region of interest. The velocity vectors are then extrapolated to identify the fluid
13 accumulation location. The first and second velocity vectors are primarily functions
14 of supplementary pressure " dP " in the region of interest, the permeability " c " of the
15 region of interest, and the viscosity " u " of the fluid in the region of interest.
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18 (Continued on next page.)
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Amendments

The amendments set forth above are shown below in an interlined format to show where and how the amendments have been made, wherein deleted text is shown in square brackets and added text is shown in underline.

In the specification, the Abstract on page 40 has been amended as follows:

A method for determining the location of the accumulation fluids in a subterranean formation[. The method] includes [the steps of] determining a first velocity vector " V_x " for migration of fluid in a region of interest in the subterranean formation. The first velocity vector includes attributes of speed and direction of flow of fluid in a first direction in the region of interest. The method further includes determining a second velocity vector " V_y " for migration of fluid in the region of interest. The second velocity vector includes attributes of speed and direction of flow of fluid in a second direction in the region of interest. The velocity vectors are then extrapolated to identify the fluid accumulation location. The first and second velocity vectors are primarily functions of supplementary pressure " dP " in the region of interest, the permeability " c " of the region of interest, and the viscosity " u " of the fluid in the region of interest.

[The supplementary pressure can be determined by identifying pressure gradients within the region, the region being characterized by a seismic image of a stacked time section representing horizons within the region. The permeability of the media within the region, and the viscosity of the fluid within the region, can either be determined mathematically or from geological data.]